

Figure 1
Map of Human IL-17 Like cDNA (SEQ ID NO:1) and
Amino Acid (SEQ ID NO:2) Sequences

1	CTCAAGTCACTCCCTAAAGACAGTGGAAATAAATTGAATAACAAACAGGCTTGCT	8
61	GAAATAAATCAGGACTCCTAACCTGTCTCCAGTCAGCTGCTTCCACGAGGCTGTGAG	28
121	TCAGTGCCCCACTTGTGACTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTGAGTGTG	48
1		
181	TGGCAATGGTCAATGGGAACCCACACCTACAGCCACTGGCCCCAGCTGTGCCCCAGCAAAG	68
9	A M V M G T H T Y S H W P S C C P S K G	88
241	GGCAGGACACCTCTGAGGAGCTGCTGAGGTGGAGCACTGTGCTGTGCTTCCCTTAGAGC	108
29	Q D T S E E L L R W S T V P P P L E P	128
301	CTGCTAGGCCCAACCGCCACCCAGAGTCTGTAGGGCCAGTGAAGATGGACCCCTCAACA	148
49	A R P N R H P E S C R A S E D G P L N S	
361	GCAGGGCCATCTCCCCCTGGAGATATGAGTTGGACAGAGACTTGAACCGGCTCCCCCAGG	
69	R A I S P W R Y E L D R D L N R L P Q D	
421	ACCTGTACCACGCCCGTTGCCCTGTGCCCGCACTGCGTCAGCTACAGACAGGCTCCCA	
89	L Y H A R C L C P H C V S L Q T G S H M	
481	TGGACCCCGGGCAACTCGGAGCTGCTTACCACACCAACAGACTGTCTTACCGGCGGC	
109	D P R G N S E L L Y H N Q T V F Y R R P	
541	CATGCCATGGCGAGAAGGCCACCCACAAGGGCTACTGCCCTGGAGCGCAGGCTGTACCGTG	
129	C H G E K G T H K G Y C L E R R L Y R V	
601	TTTCCTTAGCTTGTGTGTGTGCGGGCCCCGTGTGATGGGCTAG 643	
149	S L A C V C V R P R V M G * 162	

Figure 2A
(Map of Mouse IL-17 Like cDNA (SEQ ID NO:3) and Amino Acid
(SEQ ID NO:4) Sequences with Predicted Signal Peptide

1	ATGTACCAGGCTGTTGCATTCTTGCAATGATCGTGGAAACCCACACCCGTGAGCTTG	19
58	M Y Q A V A F L A M I V G T H T V S L	
11	CGGATCCAGGAGGCTGCAGTCACTTGCCAGCTGCTGCCCCAGCAAGAGCAAGAACCC	39
118	R I Q E G C S H L P S C C P S K E Q E P	
31	CCGAGGAGTGGCTGAAGTGGAGCTCTGCATCTGTGTCCCCCAGAGCCTCTGAGCCAC	59
178	P E E W L K W S S A S V S P P E P L S H	
51	ACCCACCAGCAGAATCCTGCAGGGCCAGCAAGGATGGCCCCCTCAACAGCAGGGCCATC	79
238	T H H A E S C R A S K D G P L N S R A I	
71	TCTCCTTGAGCTATGAGTTGGACAGGGACTTGAATCGGGTCCCCCAGGACCTGTACCAC	99
298	S P W S Y E L D R D L N R V P Q D L Y H	
91	GCTCGATGCCCTGTGCCACACTGCGTCAAGCTACAGACAGGCTCCACATGGACCCGCTG	119
358	A R C L C P H C V S L Q T G S H M D P L	
111	GGCAACTCCGTCCTCCACTTTACCACAAACCAGACGGTCTTCTACCGGGCCATGCCATGGC	139
418	G N S V P L Y H N Q T V F Y R R P C H G	
131	GAGGAAGGTACCCATCGCCGCTACTGCTTGGAGCGCAGGCTCTACCGAGTCTCCTTGGCT	159
478	E E G T H R R Y C L E R R L Y R V S L A	
160	TGTGTGTGTGCGGGCCCCGGTCAATGGCTTAGTCATGCTCACCACCTGCCTGAGGCTGA	170
538	C V C V R P R V M A *	
598	TGCCCCGTTGGAGAGAGGGCCAGGTGTACAATCACCTTGCCAATGCGGGCCGGTTCAA	
658	GCCCTCCAAAGCCCTACCTGAAGCAGCAGGCTCCCGGACAAAGATGGAGACTTGGGAG	
	AAACTCTGACTTTTGCACTTTTGGGAAGCACTTTTGGGAAGGAGCAGGTTCCGCTTGTGC	

Figure 2B

718 TGCTAGAGGATGCTGTTGTGGCATTTCTACTCAGGAACGGACTCCAAAGGCCTGCTGACC
778 CTGGAAGCCATACTCTGGCTCCTTTCCCTGAATCCCCAACTCCTGGCACAGGCACATT
838 TCTCCACCTCTCCCCCTTTGCTGTTGTTGTTGTCATGCCAACTCTGCGTGC
898 AGCCAGGTGTAAATTGCCCTTGAAGGATGTTCTGAGGTGAAGCTGTTATCGAAAGTGAAG
958 AGATTTATCCAAATAACATCTGTGTTTAAAAAATAAAAAAATAAAAAA 1496

Map of Non-Secreted Form of Mouse IL-17 Like cDNA (SEQ ID NO:9), and
Corresponding Amino Acid Sequence (SEQ ID NO:10)

1	CCGGCAGGTGCCCTCGGCGGTCCCAAGCTTAGGGAAGCTCCAGGTGCTTTGGGAAAT	10
61	GAAGAAAAGGCCACCGAGCAAAAAGAAACAGAGAAAGGAGAGCAGTGCTGTGGGCTC	
121	GCTAGGGTCGAGGGCCATTATCACCTACAAATCAGAAATGTGGAGTGCTATTCTAGAGG	
181	TCTCCATCTTTGCCATTGCTGGTGCCTCAGAAAAGTGTGATGGGTTGTCCCATTTGCCA	
241	AGAACAGCTTCTGCTTACCAGCAGGTGCTGACCTCTTTCCCCAGAGGCACAGGGAAGAA	
301	TTCCAGCCCCGGTTGGCTGCCAGAGGCTTCTCTGGCGTTGGGTACAGAGGCAGAGAAAG	
361	AAACCCCAAATGTCTCCTATGAAAACAATGTCCCCTCATCCAGGCCAGATCATTTCTGC	
421	AGTGTCACAGTTGAGACAGAAGCTGGGGTCATTTTCTGTGCCCTAAGAGTGCCCTGTTCT	
481	GCACTGGCCAAAGGCTGTTGCATTCTTTGGCAATGATCGTGGAAACCCACACCGTCAGCTTG	
	M I V G T H T V S L	
541	CGGATCCAGGAGGGCTGCAGTCACTTGCCCAAGCTGCTGCCCCAGCAAAAGAGCAAGAACCC	
11	R I Q E G C S H L P S C C P S K E Q E P	30

Figure 2C

601	CCGGAGGAGTGGCTGAAGTGGAGCTCTGCATCTGTGTCCCCCAGAGCCTCTGAGCCAC	
31	P E W L K W S S A S V S P P E P L S H	50
661	ACCCACCACGCAGAAATCCTGCAGGGCCAGCAAGATGGCCCCCTCAACAGCAGGGCCATC	
51	T H A E S C R A S K D G P L N S R A I	70
721	TCTCCTTGGAGCTATGAGTTGGACAGGACTTGAATCGGTCCCCCAGGACCTGTACCAC	
71	S P W S Y E L D R D L N R V P Q D L Y H	90
781	GCTCGATGCCGTGTGCCCCACACTGCGTCAGCCTACAGACAGGCTCCACATGGACCCGCTG	
91	A R C L C P H C V S L Q T G S H M D P L	110
841	GGCAACTCCGTCCCACCTTTACCACAACACAGACGGTCTTCTACCGGGCCATGCCATGGC	
111	G N S V P L Y H N Q T V F Y R R P C H G	130
901	GAGGAAGTACCATCGCCCGTACTGTCTTGGAGCGCAGGCTCTACCGAGTCTCCTTGGCT	
131	E E G T H R R Y C L E R R L Y R V S L A	150
961	TGTGTGTGTGCGGCCCCGGTCAATGGCTTAGTCATGCTCACCACCTGCCCTGAGGCTGA	
151	C V C V R P R V M A *	161
1021	TGCCCGGTTGGAGAGAGGCCAGGTGTACAATCACCTTGCCAAATGCGGGCCGGTTCAA	
1081	GCCCTCCAAAGCCCTACCTGAAGCAGCAGGCTCCCGGACAAAGATGGAGACTTGGGGAG	
1141	AAACTCTGACTTTTGCACTTTTGAAGCACTTTTGGGAAGGAGCAGGTTCGCGTTGTGC	
1201	TGCTAGAGGATGCTGTGTGGCATTTCTACTCAGGAACGGACTCCAAAGGCCCTGCTGACC	
1261	CTGGAAGCCATACTCCTGGCTCCTTTCCCCTGAATCCCCCAACTCCTGGCACAGGCACCTT	
1321	TCTCCACCTCTCCCCCTTTGCCCTTTTGTGTGTTTGTGTGATGCCAACTCTGCGTGC	
1381	AGCCAGGTGTAATTGCCCTTGAAGGATGGTCTGAGGTGAAAGCTGTTATCGAAAGTGAAG	
1441	AGATTTATCCAAATAACATCTGTGTTTAAAAAATAAAAAAAAAAAAAAAAAA 1496	

Figure 3B

hIL-17L	130	140	150	160	170	180
	YHARCLCPHCVSLQ	TGSHMDPLGNSV	PLYHNQTVFYRR	PCHEEGTHRRYCL	ERRLYRVS	
	:: :	:: : ::	: ::	: :	: ::	: :
hIL-17	WEAKCRHLGCIN--	ADGNVDYHMNSV	PIQQEILVLRRE	PPHCPNS----	FRLEKIL--VS	
	90	100	110	120	130	140
hIL-17L	190					
	LACVCVRPRVMA					
	:: :					
hIL-17	VGCTCVTPIVHVA					
	150					

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Figure 4

Pile-Up of Human IL-17 like Amino Acid Sequence, hIL-17L, (SEQ ID NO:2)
with a Known Human IL-20 Amino Acid Sequence, hIL-20 (SEQ ID NO:6)

SCORES Init1: 124 Initn: 124 Opt: 175
Smith-Waterman score: 175; 36.7% identity in 90 aa overlap

	70	80	90	100	110	120	
hIL-17L	RWSTVPVPFLEPARPNRHPESCRASEDGPLNSRAISPWRYELDRDLNRLPQDLYHARCLC						
hIL-20	RNIEEMVAQLRNSSELAQRKCEVNLQLWMSNKRSLSPWGYSINHDPRI PVDLPEARCLC						
	70	80	90	100	110	120	
	130	140	150	160	170	180	
hIL-17L	PHCVSLQTGSHMDPLGNSVPLYHNQTVFYRRPCHGEEGTHRRYCLERRLYRVSLA-CVCV						
hIL-20	LGCVNPFTMQE-DRSMVSVPVF-SQVPVRRRLCPPPPRTGP--CRQRAVMEITIVAGCTCI						
	130	140	150	160	170		
hIL-17L	RPRVMA						
hIL-20	F						

Figure 5

Pile-Up of Human IL-17 Like Amino Acid Sequence, hIL-17L, (SEQ ID NO:2)
with a Known Human IL-17 Amino Acid Sequence, hIL-17b (SEQ ID NO:7)

Family Member

SCORES Init1: 124 Initn: 124 Opt: 178
Smith-Waterman score: 178; 35.6% identity in 90 aa overlap

	70	80	90	100	110	120	
hIL-17L	RWSTVPVP	PLEPARPNRHP	ESCRASEDGPLNSRAIS	PKWYELDRDLNRL	PQDLYHARCLC		
hIL-17b	RNIEEMVAQLRN	SSSELAQRKCEVNLQLWMSNKRSLSPWGYSINHDPSRIPVDLPEARCLC					
	70	80	90	100	110	120	
hIL-17L	130	140	150	160	170	180	
	PHCVSLQTGSHMDPLGNSVPL	YHNQTVFYRRPCHGEEGTHRRYCLERRLYR-VSLACVCV					
hIL-17b	LGCVPFTMQE-DRSMVSPVF-SQVPVRRRLCPPPPRTGP--CRQRAVMETI	AVGCTCI					
	130	140	150	160	170		
hIL-17L	190						
	RPRVMA						
hIL-17b	F						
	180						

Figure 6A
Pile-Up of Human IL-17 Like Amino Acid Sequence, hIL-17L, (SEQ ID NO:2)
with Amino Acid Sequence of a Known Human IL-17 Family Member,
hIL-17c (SEQ ID NO:8)

SCORES Initl: 149 Initn: 194 Opt: 236

Smith-Waterman score: 243; 34.5% identity in 171 aa overlap

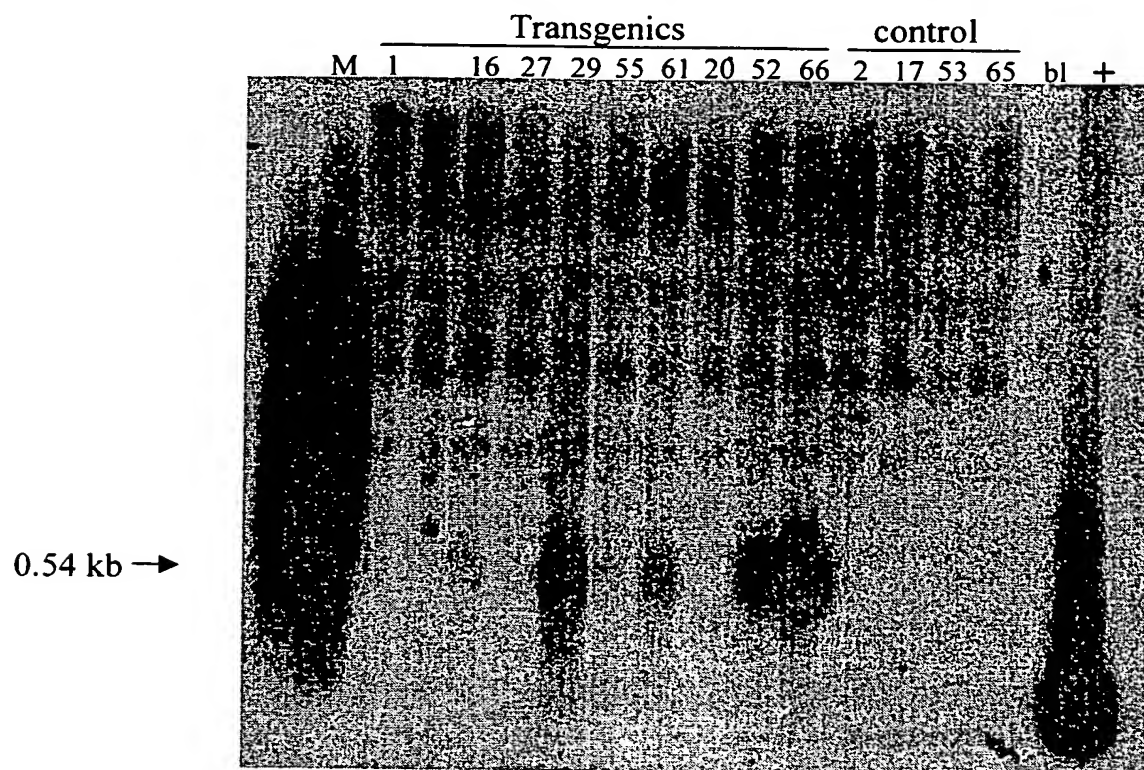
hIL-17L	20	30	40	50	60	69
	GLSVSAPLVTECAVPSMYQVVAFLAMVMGTHTYSHW-PSCCPSK----GQDTSELLR--					
hIL-17c	MTLLPGLLFLTLHTCLAHHDPSLRGHPHSHGTPHCYSAEELPLGQAPPHELLARGA					
	10	20	30	40	50	
hIL-17L	70	80	90	100	110	
	-WS-TVPVP---PLEPARP-NRH--PES---C---RASE--DGPLNSRAISPWRYELDRD					
hIL-17c	60	70	80	90	100	110
	KWQALPVALVSSLEAASHRGRHERPSATTQCPVLRPEEVLEADTHQRSISPWRYRVDTD					

Figure 6B

hIL-17L	120	130	140	150	160	169
	LNRLPQDLYHARCLCPHCVSLQTGSHMDPLGNSVPLYHNQTVFYRRPCHGEEG----	THR				
hIL-17c	120	130	140	150	160	170
	EDRYPQKLAFAECLCRGCIDARTGRETAAAL-NSVRLLQSLVLRPPC-SRDGSGGLPTPG					
hIL-17L	170	180	190			
	RYCLERRLYRVSLACVVRPRVMA					
hIL-17c	180	190				
	AFAFHTEFIHVPVGCTCVLPRSV					

Figure 7

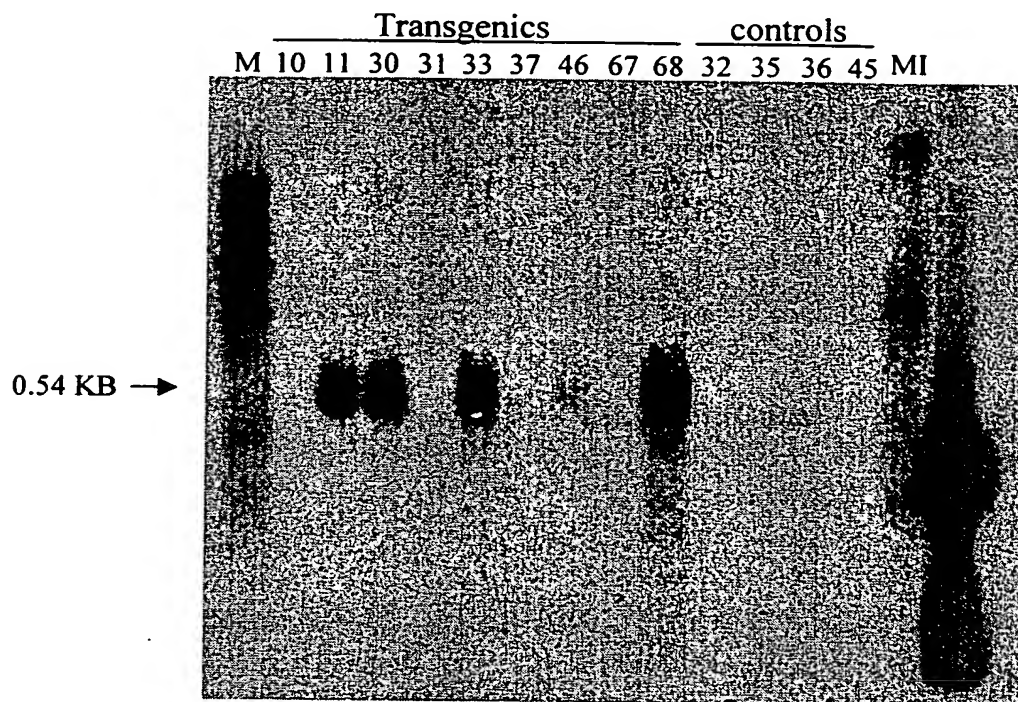
Northern Blot Expression Analysis of TH00-018 Necropsied Transgenic Founders



400394.123404
T0052604

Figure 8

Northern Blot Expression Analysis of TH00-018
Hepatectomized Transgenic Founders



10037591.1201
T01221 T652E00T

Figure 9

Non-Transgenics

IL-17E Transgenics

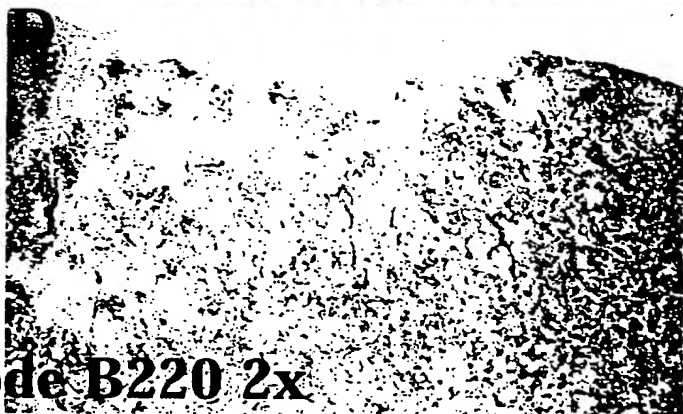
A

B



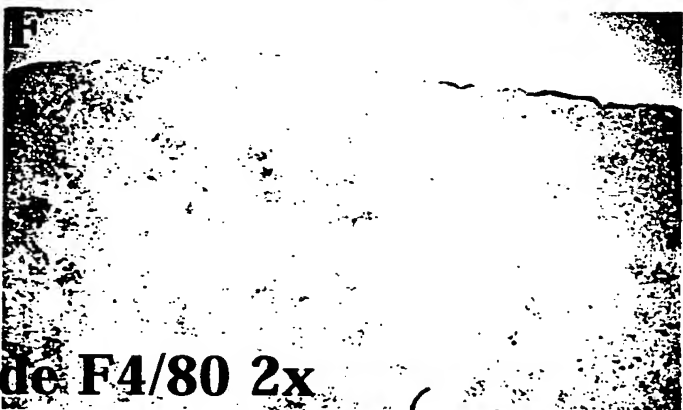
Lymph Node H&E 2x

C

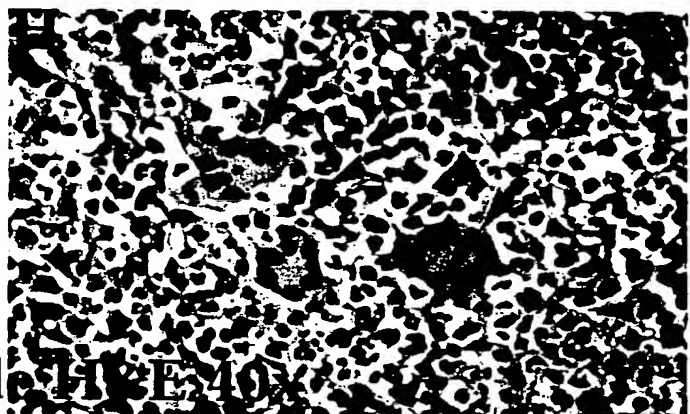
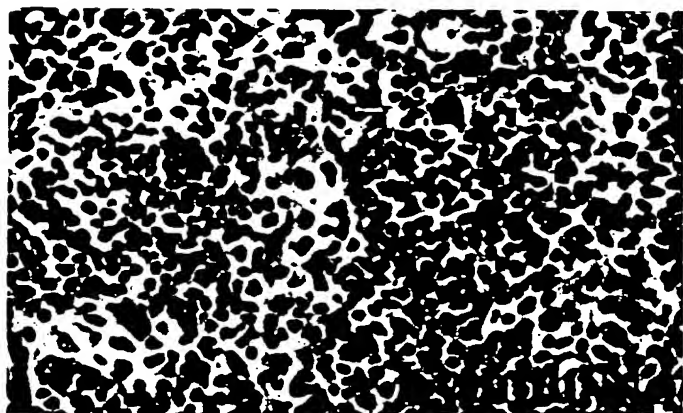


Lymph Node B220 2x

E



Lymph Node F4/80 2x



Lymph Node H&E 40x

Figure 10

Non-Transgenics

IL-17E Transgenics

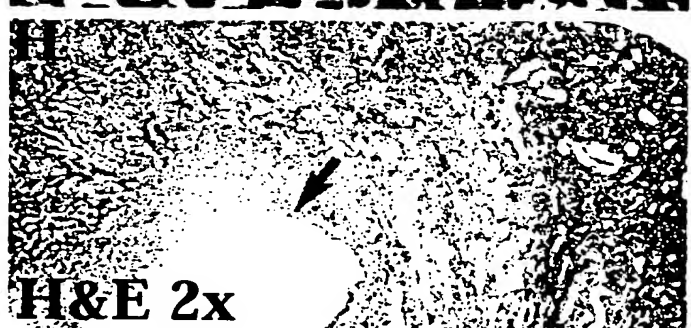
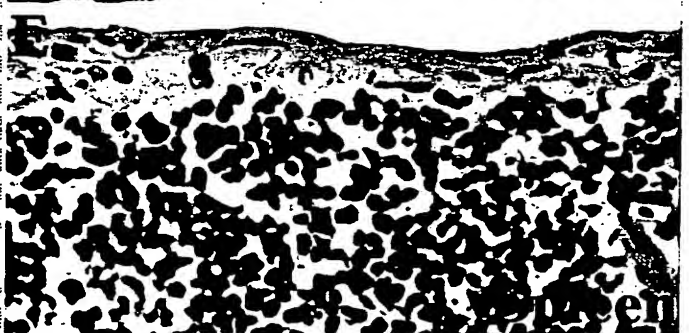
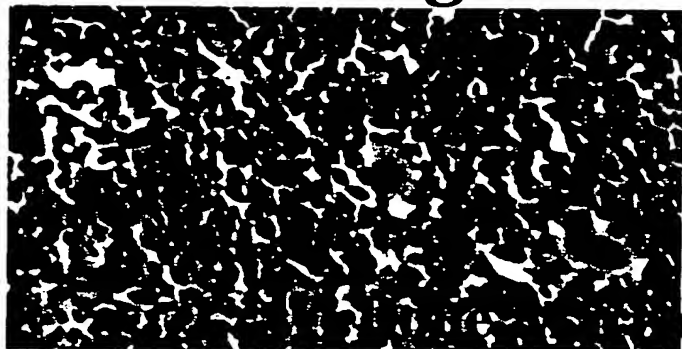


Figure 10

Figure 11

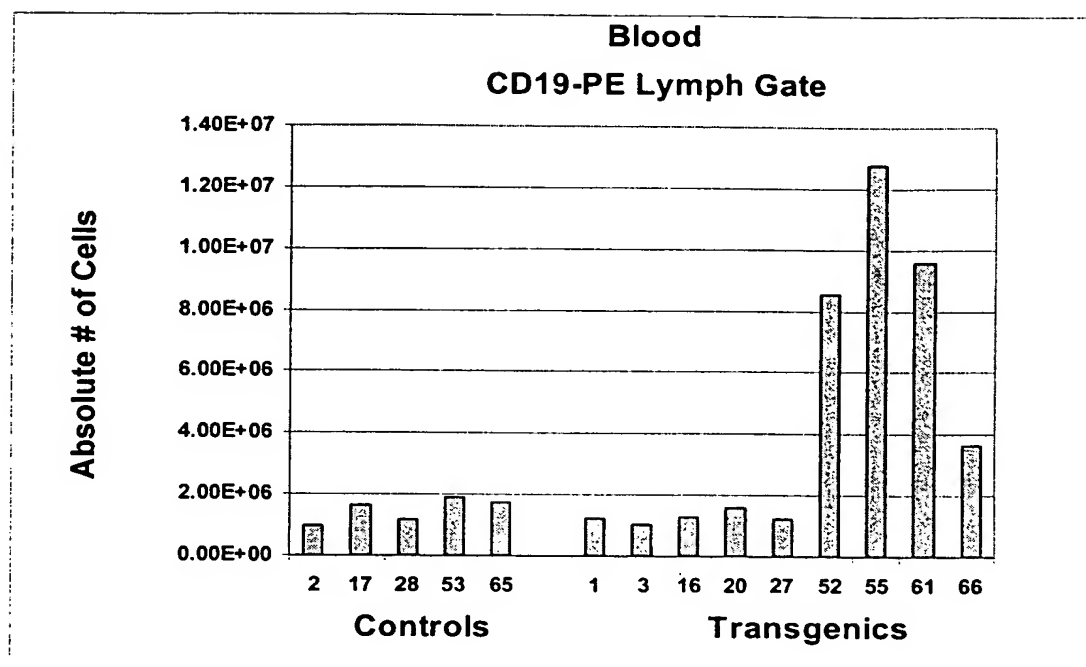


Figure 12

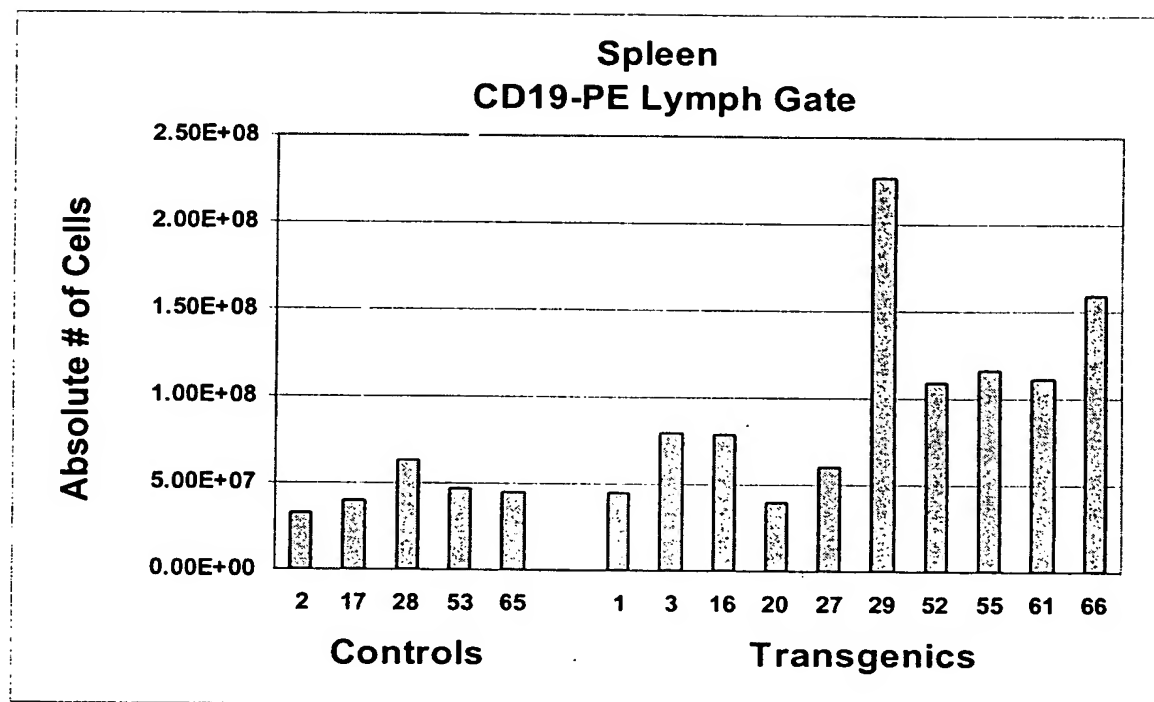


Figure 13

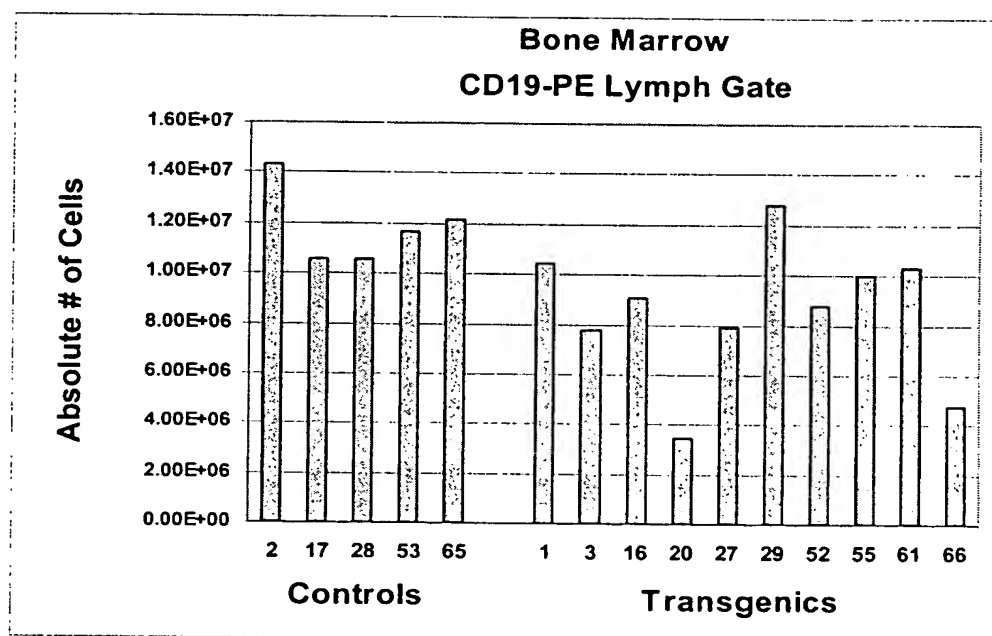


Figure 14

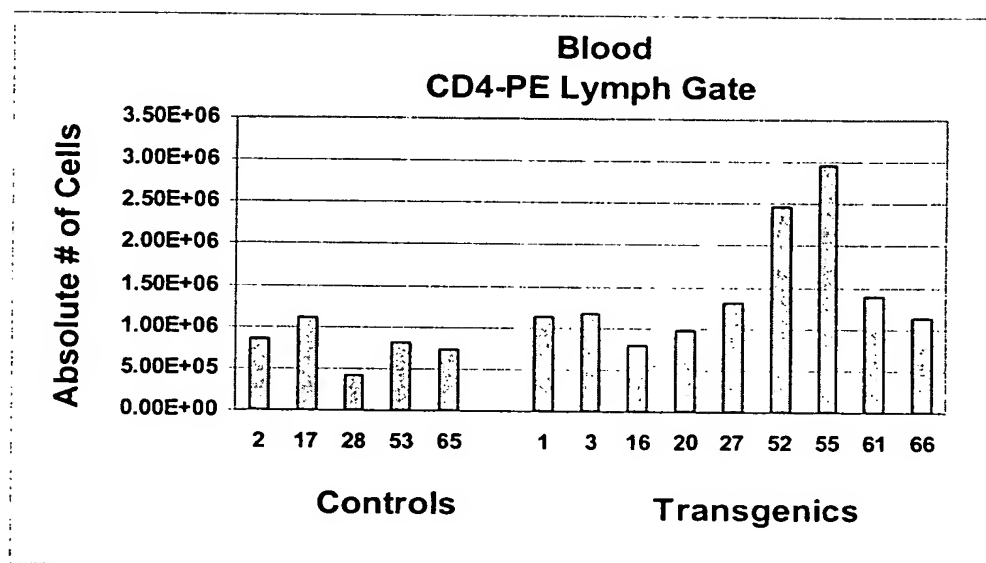


Figure 15

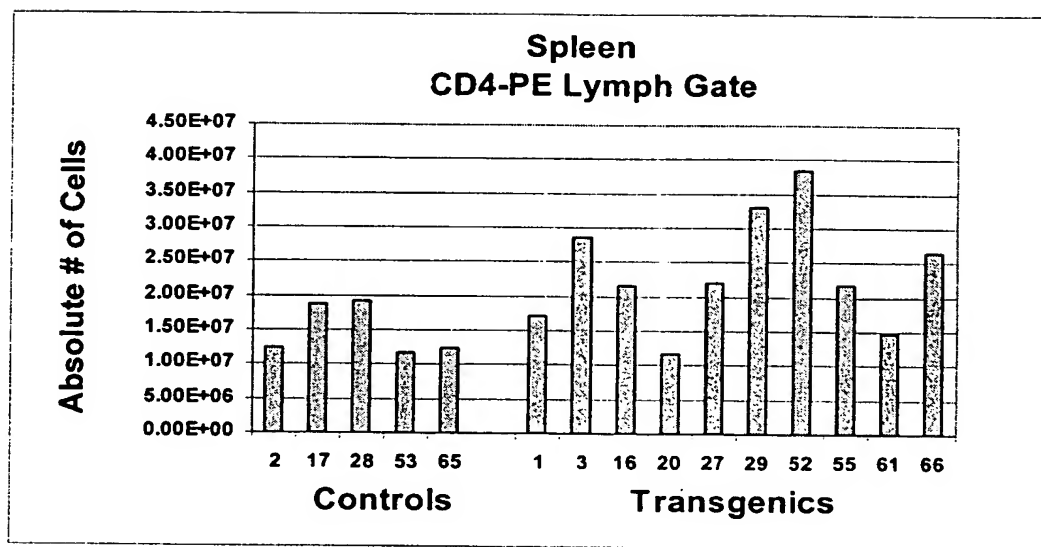


Figure 16

CD45R+ CELLS EXPRESSING IL17Br IN TRANSGENIC BONE MARROW

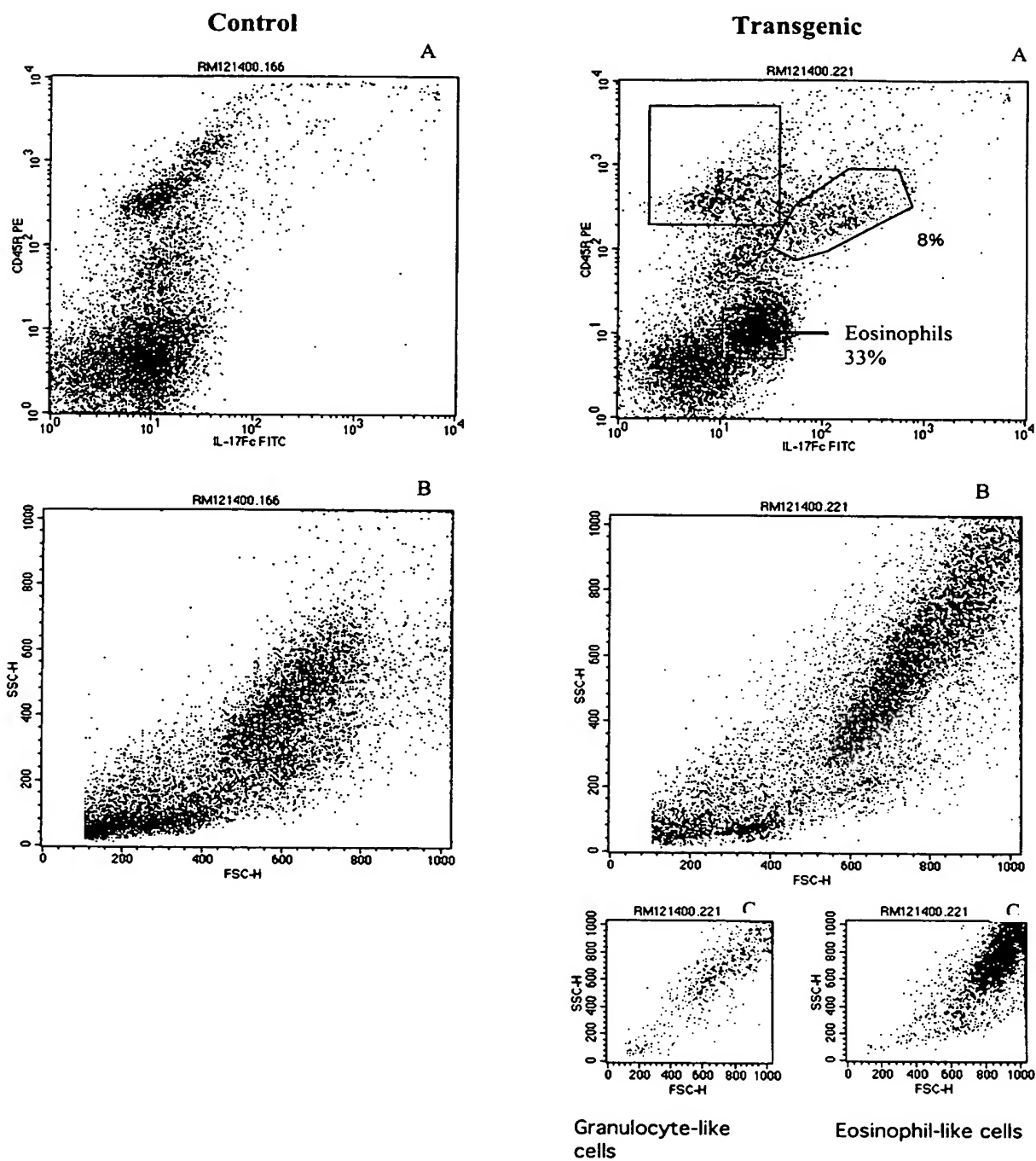


Figure 17

CD4+ CELLS EXPRESSING IL17Br IN TRANSGENIC BONE MARROW

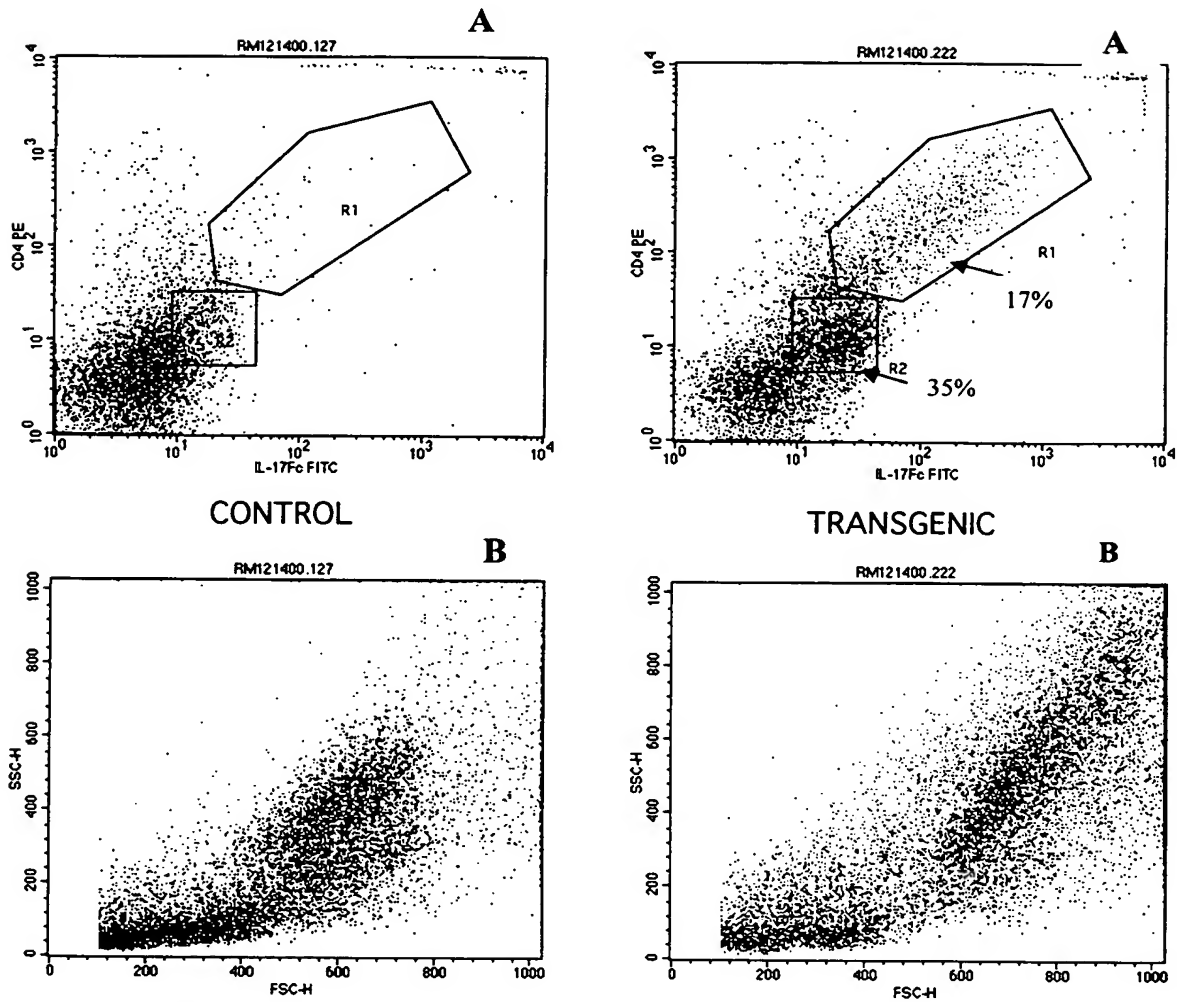


Figure 18

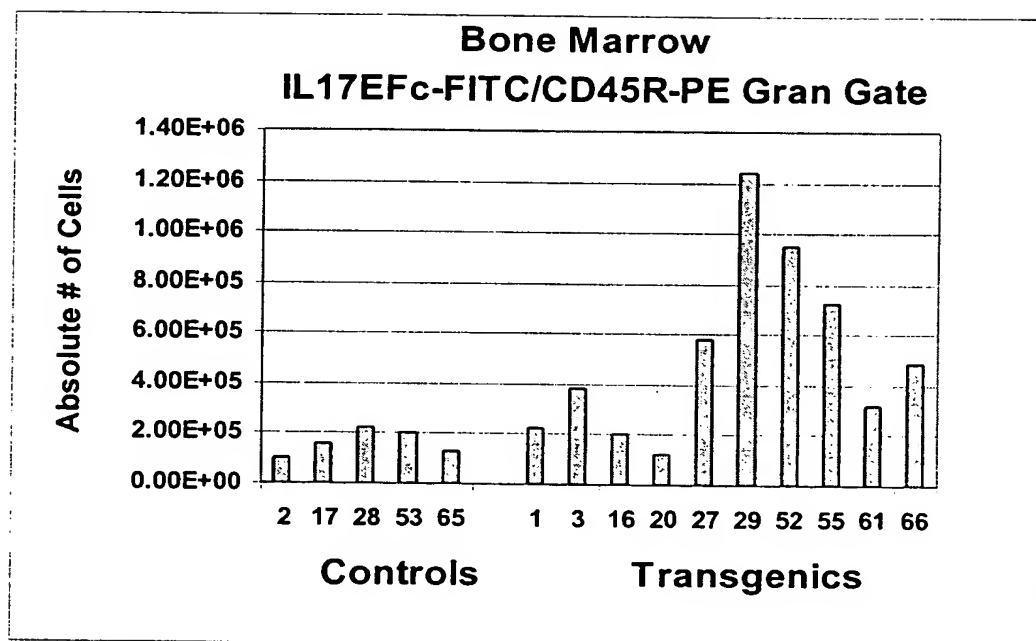


Figure 19

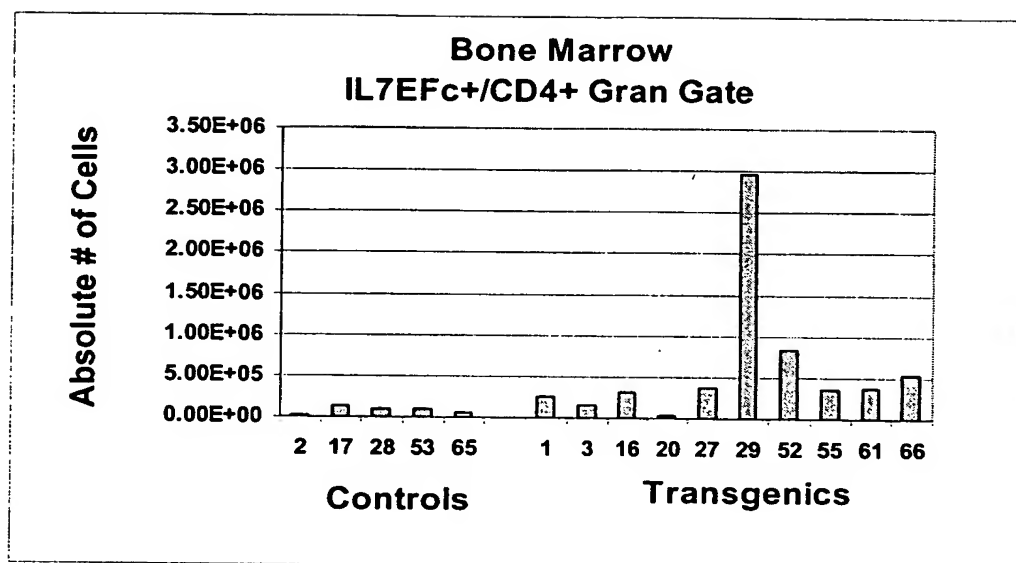
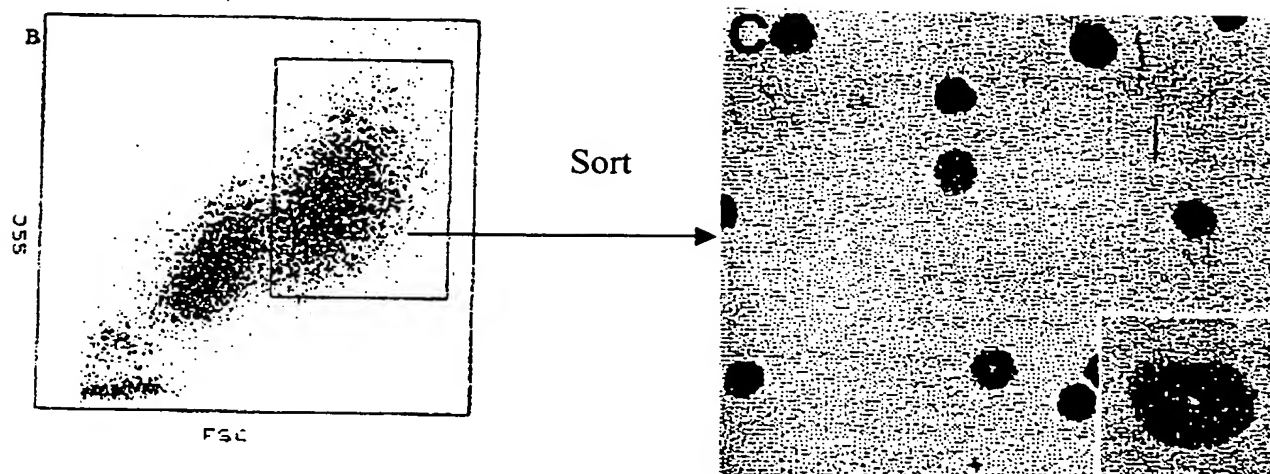


Figure 20

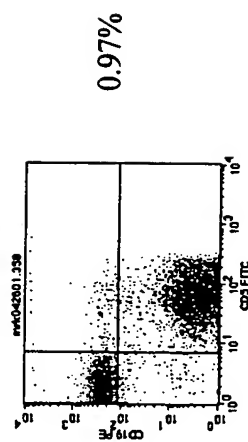


10037624 12404

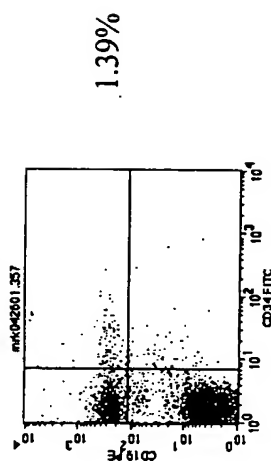
Figure 21A

Non-transgenic Control

CD5+ on CD19+ Lymphocytes in Lymph Node



CD34+ on CD19+ Lymphocytes in Lymph Node



Transgenic

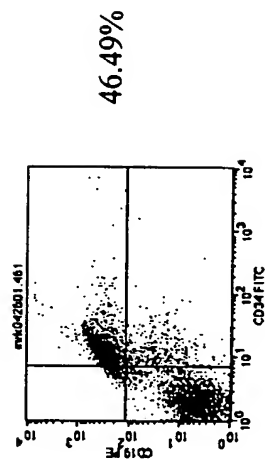
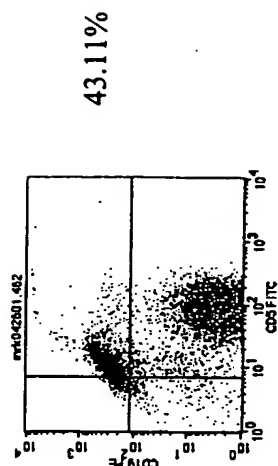


Figure 21B

CD4 Expression on Eosinophils in Bone Marrow

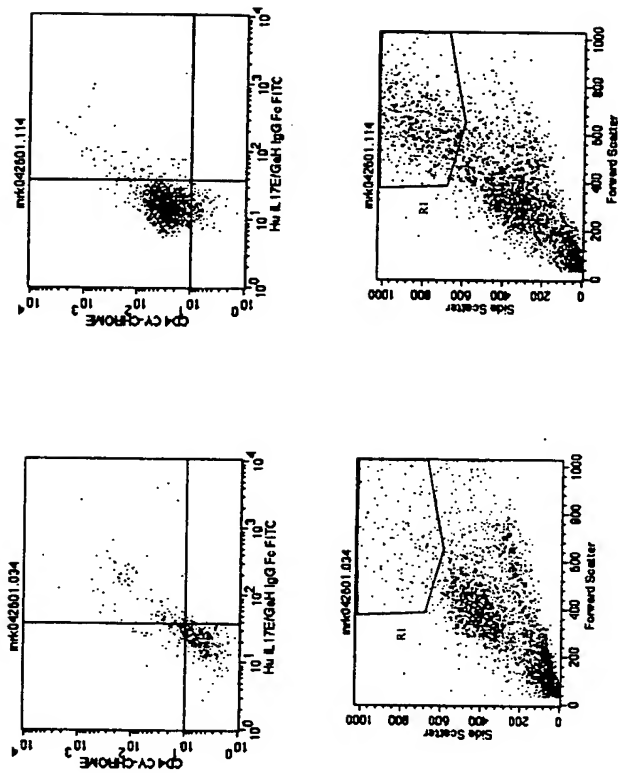


Figure 22

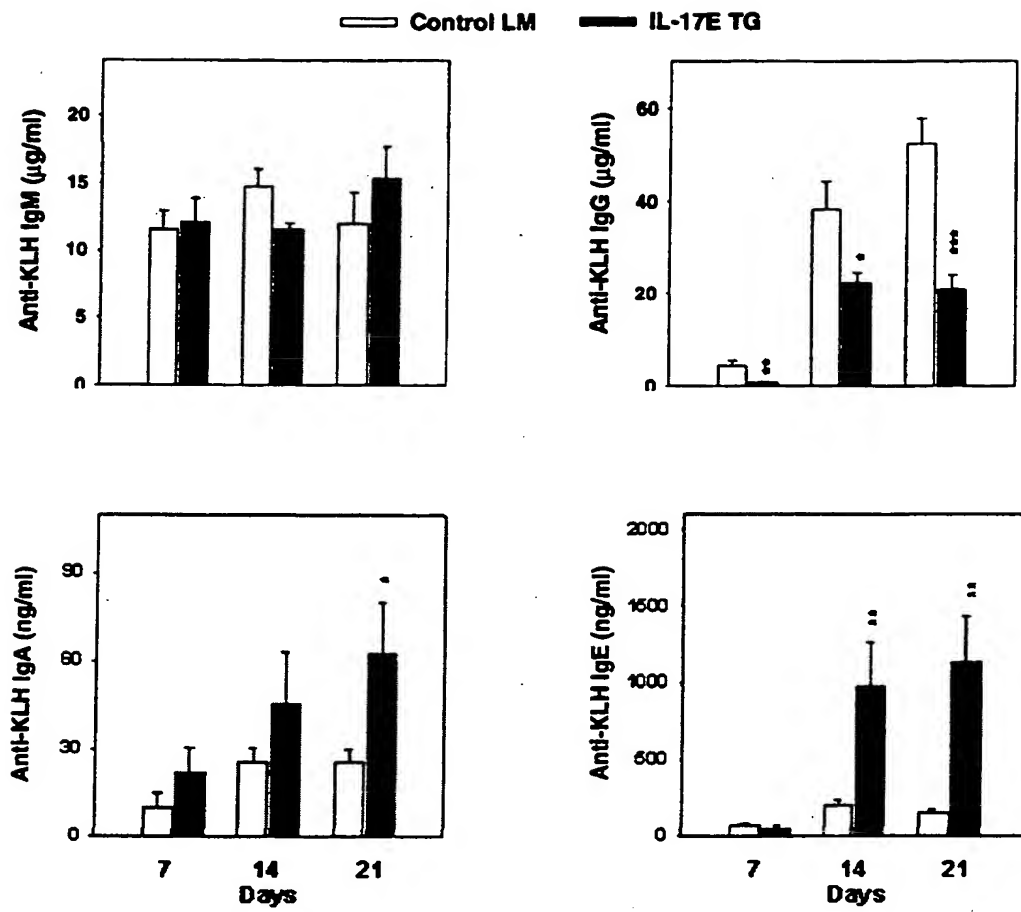


Figure 23

